# Notes on *Lonchodes geniculosus* (Westwood, 1848) (Diapheromeridae: Lonchodinae)

## Paul D. Brock & Francis Seow-Choen,

Paul D. Brock, "Papillon", 40 Thorndike Road, Slough SL2 1SR, UK. Francis Seow-Choen, 22 Saraca Road, Singapore 169608.

#### Abstract

Phasma (Bacteria) geniculosum Westwood, 1848 [Lonchodes geniculosus (Westwood)] is confirmed as a synonym of Lonchodes geniculatus Gray, 1835, contrary to a report in Hennemann (2003), which is based on another Lonchodes species, possibly originating from Myanmar.

#### Key words

Phasmida, Lonchodes geniculosus, Myanmar, Peninsular Malaysia.

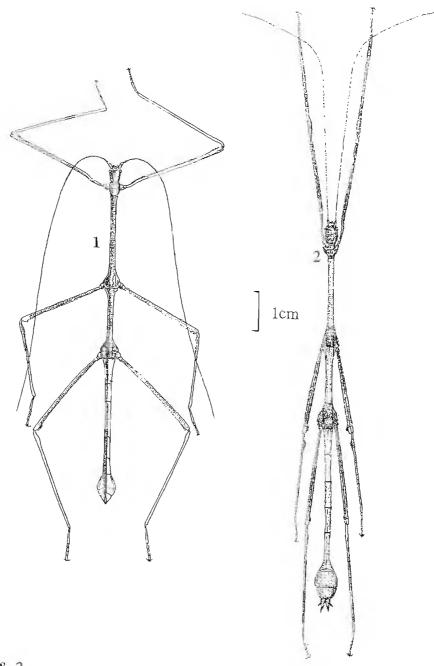
#### Introduction

Hennemann (2003) removed *Phasma* (*Bacteria*) geniculosum Westwood, 1848 [Lonchodes geniculosus (Westwood)] from synonymy with Lonchodes geniculatus Gray, 1835. He also described and figured both sexes from Tenasserim, Myanmar, a locality regarded as doubtful due to probable errors in localities recorded by the supplier or collector (confirmed as doubtful by Hennemann, pers. com.).

## Remarks

The genus Lonchodes Gray, 1835 can be confusing, but comparison with Westwood's accurate drawing of the male of L. geniculosus from Prince of Wales Island (= Penang in Peninsular Malaysia) (fig 1) shows this differs from Hennemann's male L. geniculosus "from Myanmar" (fig. 2) in more than one respect. Whilst there are general similarities, both sexes clearly differ. The male in the Naturhistorisches Museum Wien (Vienna), which Hennemann attributed to L. geniculosus (which Brunner listed in the collection as Lonchodes sp., Penang) has been examined, and found to be typical of L. geniculatus. It is probable that Hennemann has not taken into account variability within males of L. geniculatus across its range in Peninsular Malaysia and Singapore. Hennemann described the L. geniculosus based on his specimens and not Westwood's holotype male in the Hope Entomological Collection, Oxford University Museum (OXUM), thus resulting in the present confusion.

Westwood's holotype male of Phasma (Bacteria) geniculosum has been examined in detail by both authors and it differs from Hennemann's species significantly. Westwood's brief description of his specimen is important and showed marked differences between his specimen and Hennemann's species. Westwood's description is reproduced here. "Phasma elongated, cylindrical, wingless, obscure brown, unarmed, the extremity of the meso-and metathorax suddenly and equally dilated and green; the head and prothorax simple, green, the thorax rather longer than the entire abdomen, the extremity of which is dilated and cleft, legs slender and green, the tips of all femora with a broad ring of red and internally armed with several minute spines, middle legs rather shorter but scarcely thicker than the rest, tarsi simple with the basal joint elongated." Westwood's L. geniculatus has a thorax which is longer than the abdomen and it is true of all our specimens from Peninsular Malaysia and Singapore but not Hennemann's species. Simple mathematics from Hennemann's table of measurement of his species showed that the longest possible abdomen is 53.4mm whilst the longest possible thorax is only 44.5mm. The extremity of the mesothorax and the metathorax are equally dilated in Westwood's specimen and our specimens of L. geniculatus but not in Hennemann's species which has a metathorax extremity which is broader than the extremity of the mesothorax. A further point to add is that the head of Westwood's specimen is thin with almost parallel sides and not broader than the prothorax as are all specimens of L. geniculatus unlike Hennemann's species which has a globular head. Hennemann has also not taken into account intraspecific variations in his description of the differences in the mid femora of L. geniculatus. Not all our specimens of the male of L. geniculatus have a prominent spine on the superior carina of the mid femora. We have several specimens in our collection where the mid femora of L. geniculatus does not possess any spine on its superior aspect.



Figures 1 & 2.

- 1. L. geniculosus (Westwood) male (from Westwood, 1848)
- 2. L. geniculosus Hennemann, not Westwood male (from Hennemann, 2003)

Penang is the type locality of Westwood's phasmid. The second author travels extensively in Penang looking for phasmids and is well acquainted with museum and private collections of Penang phasmids. Whilst *L. geniculatus* is plentiful both in the wild in Penang and in these collections, he had never come across a specimen that looks remotely like Hennemann's species.

As part of research on the phasmid fauna of Peninsular Malaysia, Brock's catalogue of species (1995) details confirmed records of type material. The holotype of L. geniculatus is in the Museum of Victoria, although Hennemann stated 'not traced', after Bragg (2001). The holotype male clearly matching Gray's description is in the Curtis collection, an unlabelled male to the right of a male type Ctenomorpha tessulata. It is hoped that confirmed details of the type localities (Otte & Brock, 2003) should assist researchers to trace and examine type specimens. In view of our comments above, Phasma (Bacteria) geniculosum Westwood (not Hennemann) is confirmed as a synonym of L. geniculatus Gray.

The first author's research in archive material at the Hope Entomological Museum, Oxford University Museum, confirms that Westwood was familiar with Curtis' type material, indeed the archives include beautiful, but only partly coloured, unpublished paintings of some phasmids in the Curtis collection.

We have to reject therefore Hennemann's account of *Lonchodes geniculosus* (Westwood, 1848) as being different from *Lonchodes geniculatus* Gray, 1835.

### References

Bragg, P.E. (2001) Phasmids of Borneo. Natural History Publications (Borneo), Kota Kinabalu, Sabah.

Brock, P.D. (1995) Catalogue of stick and leaf-insects (Insecta: Phasmida) associated with Peninsular Malaysia and Singapore. *Malayan Nature Journal*, 49: 83-102.

Gray, G.R. (1835) Synopsis of the Species of Insects Belonging to the Family of Phasmidae. Longman, Rees, Orme, Brown, Green and Longman, London.

Hennemann, F.H. (2003) The identity of Lonchodes geniculosus (Westwood, 1848) – a mistaken Lonchodinae from Malaysia and the description of the female (Phasmatodea: Phasmatidae: Lonchodinae). Phasmid Studies, 11(2): 23-30. Otte, D. & Brock, P. (2003) Phasmida Species File. A Catalog of the Stick and Leaf Insects of the World. The Orthopterists' Society. (A PDF file, scheduled for annual update).

Westwood, J.O. (1848) Cabinet of Oriental Entomology. London.